



Practical Problems with Pricing Delay Using Eichleay¹

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Abstract

Since 1960 the Eichleay Formula has been used to price extended and/or unabsorbed home office overhead. Most in the construction industry treat the Eichleay Formula as an accounting mechanism – seldom understanding that the Armed Services Board of Contract Appeals created this “formula” as an estimating tool, not an accounting method. There are some practical problems with the Eichleay Formula. From the accounting perspective there are several major flaws built into the formula. From the project owner’s perspective, there is a risk of overcompensation unless certain contractual defenses are employed. And, from the contractor’s perspective, there are issues with the applicability and the use of the formula. This paper examines the traditional Eichleay Formula from all three viewpoints to identify the problems and offer some recommendations on how to alleviate them.

Introduction

Delay is a common occurrence on construction projects. Delay may be caused by action or inaction of the owner, their designer or construction manager; or by the contractor, their subcontractors, suppliers, or deliverymen; or by outside forces such as weather, labor actions, war or acts of terrorism, material shortages, etc. The list of potential causes of delay is

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extensive. What owners and contractors focus on in the event of delay is how to deal with the issue with under the terms and conditions of the contract.

Most standard form contracts in both the public and the private sector deal with at least three types of delay in their terms and conditions, as follows.

- Inexcusable Delay – This is delay caused by the contractor or one his subcontractors or suppliers at any tier. Typically, most contracts deny any time or cost recovery to the contractor in the event of inexcusable delay and require the contractor to recover the lost time or pay actual or liquidated damages for late completion.
- Excusable Delay – This is delay brought about by a third party (that is, neither the owner nor the contractor) or some outside force such as weather, acts of God, acts of war or terrorism, labor actions, etc. Private contracts frequently deal with this situation in the Force Majeure clause while many public contracts include this type of delay in the Termination for Default clause⁴. Most standard form contracts allow the recovery of the delayed time but award no time related costs for the period of the excusable delay. Thus, the contractor receives time but no time related costs while the owner grants the time and cannot assess late completion damages for the delayed time.
- Compensable Delay – This is delay caused by the owner or someone for whom the owner is responsible (such as delayed return of drawings which impact the project schedule) or by an event for which the owner has assumed liability (for example, differing site conditions). Most standard form contracts allow the contractor to recover both the lost time as well as time related damages from the owner. Contractors are most often allowed to recover extended field office, storage, and equipment costs; idled labor and equipment costs; impact costs; lost productivity costs; and such other costs that can be shown to have been incurred as a result of the delay. Additionally, contractors may be allowed to recover extended or unabsorbed home office overhead costs.

⁴ See FAR 249-10(b) for a list of excusable delay causes in typical U.S. Government construction contracts.



While there are several other types of delay – pacing delay, concurrent delay, early completion delay and impact delay – which may be recoverable under contracts, each will, depending upon the terms and jurisdiction of the contract, be dealt with as one of the above types of delay.

Once the cause of the delay is identified the argument turns more technical. What is the extent of the delay? Due to the complexity of modern day scheduling and multiple ways to perform forensic schedule analysis, negotiations over the extent of a delay are often difficult. Delay analyses performed by two different parties, concerning the same event, can and often do yield results substantially at odds with one another. However, if both the owner and the contractor stay focused on resolution, some agreement can be reached on both the extent of delay and the resulting recovery (i.e., non-excusable, excusable, compensable or concurrent).

Then the argument turns to financial impact. That is, what is the cost of a day of compensable delay? Provided the contractor maintained reasonably good job cost records, determining daily field office overhead (“FOOH”) costs is not terribly difficult. Additionally, other costs such as idled labor and equipment, extended equipment and storage, etc. are not difficult to ascertain if good job cost records have been maintained. However, in owner-caused delay situations, contractors frequently seek recovery of extended or unabsorbed home office overhead (“HOOH”). This is where negotiations often deadlock. Why? There is no standard method of calculating HOOH. Most contractors want to use formulas to calculate their damage. Most owners want to see “real damage” based on some sort of audit – “Prove your overhead increased as a result of my delay!”

This paper addresses the issue of the recovery of HOOH. Specifically, the paper identifies practical problems with the use of the Eichleay Formula as a method of calculating extended/unabsorbed HOOH. The paper discusses these problems from the viewpoint of accountants/auditors, owners and contractors. Finally, the paper offers some practical remedies to be considered when addressing this issue while preparing contracts for bid.

What is Home Office Overhead?

To begin, let’s define the term “home office overhead” and identify what expenses are typically allocated to this cost account by contractors.

“Home office overhead is the general and administrative expense (G&A) an enterprise expends to support its various revenue generating activities. Characteristically, the home office overhead costs can not be directly allocated to



a specific project. It is composed of numerous items of indirect cost, typically referred to as the “overhead pool”...”⁵

HOOH, generally, are those costs incurred by a contractor for the benefit of all projects in progress. This is an actual cost, which is an essential part of the cost of doing business.⁶ These are costs that cannot be directly allocated to a project. This definition excludes those costs incurred by the contractor solely in support of a single project or group of projects. Typical examples of HOOH discussed in the industry include:

Executive and administrative salaries	Legal and accounting expenses
Home office rent and expenses	Advertising
Company insurance	Recruiting costs
Utilities, telephone, fax and computers for the home office	Human relations costs
Travel for home office staff	Interest on company borrowings
Depreciation of company assets	Bad debt
Professional fees	Entertainment
Bid costs	Contributions
Licenses and fees	Automobiles
Data processing	Property taxes
Photocopying	Office supplies

“Thus, for the contractor’s enterprise to remain viable, a portion of the contract revenues from each project must be available to pay for or ‘absorb’ the home office overhead expense.”⁷

There are, however, few regulations concerning accounting for HOOH costs. Contractors are reasonably free to account for such costs in whatever manner they choose. They must, however,

⁵ Patrick A. McGeehin and Carleton O. Strouss, *Learning from Eichleay: Unabsorbed Overhead Claims in State and Local Jurisdictions*, 25 *Public Contract Law Journal* 351, Winter, 1996.

⁶ William Schwartzkopf, John J. McNamara and Julian F. Hoffar, *Calculating Construction Damages*. New York, NY: John Wiley & Sons, Inc., 1992.

⁷ “By comparison, certain items of administrative support provided in the field usually are treated as direct costs of the project, for example, site administrative personnel, field office trailers, utility services, and the like. These are generally referred to as field office overhead or general conditions costs. ... items of cost that can be directly allocated to a specific contract are not properly part of the [home office] overhead pool.”



use the same system at all times and on all contracts.⁸ While Federal Acquisition Regulations (“FAR”) limit the recoverability of some types of HOOH costs these limitations apply only to contracts directly with agencies of the Federal government.⁹

“Compensation sought by the contractor for unabsorbed home office overhead can be one of the more contentious issues faced on ... projects.”¹⁰ However, if the project owner is an agency of the U.S. Government, or if a contractor has a contract directly with the U.S. Government and is seeking recovery of HOOH, then they are required to use the classic Eichley Formula to estimate the cost of the unabsorbed HOOH.¹¹

What is the Eichley Formula and How Does it Work?

The Eichley Formula, brought about initially by decisions issued by the U.S. Court of Claims, is a method to equitably determine the allocation of unabsorbed overhead to allow fair compensation to a contractor for a government caused delay. It is used to determine the compensation to a contractor for unabsorbed overhead costs due to government-caused delay.¹²

“There is no exact method to determine the amount of home office expenses to be allocated to any particular contract or part of a contract. It is not necessary to prove a specific amount of home office expenses, but only to determine a fair allocation for the purpose of compensating a contractor for delay by the government. ... The Eichley formula calculates allocable overhead costs as the ratio of billings of the subject contract to total firm billings during the contract period, multiplied by the total overhead incurred, divided by the actual days of performance, times the number of days the contractor was delayed. The basic formula is outlined as an allocation of the total recorded main office expense to the contract in the ratio of contract billings to total billings for the period of performance. The resulting determination of a contract allocation is divided into

⁸ John L. Callan and Hugh L. Rice, Construction Accounting Deskbook – Financial, Tax, Accounting, Management and Legal Answers, 5th Edition, Aspen Publishers, New York, 2004.

⁹ 48 C.F.R. §§31.205-1 to 31.205-23 (1990).

¹⁰ Transportation Research Board, Compensation for Contractor’s Home Office Overhead: A Synthesis of Highway Practice, Federal Highway Administration, Transportation Research Board, Washington, D.C., 2003.

¹¹ *Wickham Contracting Co. Inc... v. Fischer*, 12 F.3d 1574, 1580-81 (Fed. Cir. 1994).

¹² *Sunshine Construction & Engineering, Inc. v. U.S.*, 64 Fed. Cl. 346; 2005 U.S. Claims LEXIS 55, March 4, 2005.



a daily rate, which is multiplied by the number of days of delay to arrive at the amount of the claim.”¹³

Stated more directly, the following is the classic Eichleay Formula described above --

$$\left(\frac{\text{Total Contract Billings}}{\text{Total Company Billings For Performance Period}} \times \text{Total Company Overhead for Performance Period} \right) = \text{HOOH Allocable to Contract}$$

$$\frac{\text{HOOH Allocable to Contract}}{\text{Actual Days of Contract Performance}} = \text{Daily Contract HOOH Rate}$$

$$\text{Daily HOOH Rate} \times \text{Days of Compensable Delay} = \text{HOOH Recoverable}$$

Looked at this way and viewed in the context of the citations above, it is obvious that this is a method of estimating delay damages for unabsorbed HOOH and is not an accounting formula, contrary to popular belief.

Genesis of the Eichleay Formula

Again, contrary to popular belief, the Eichleay Formula was not created out of whole cloth by the Armed Services Board of Contract Appeals (“ASBCA”) in 1960. Rather, the foundation of this delay allocation formula was put in place by the U.S. Court of Claims nearly 20 years earlier. The dispute arose from a 1933 Veteran’s Administration construction contract in Fresno, California, on which there were a large number of changes and stop work directives issued by the government, resulting in a 58 day delay. Baruch pursued a claim which included a claim of \$3,107 for “general office overhead”. After trial, the Court of Claims awarded “general office overhead” damages, stating in part –

“During the delay occasioned by the defendant’s stop order ... the contractor gave prompt notice to the contracting officer that such delay was occurring, that damages therefor were accumulating and that claim for such damages against the Government would be demanded ...

¹³ *Oak Environmental Consultants, Inc. v. U.S.*, 77 Fed. Cl. 688; 2007 U.S. Claims LEXIS 252, August 7, 2007.



Manifestly this delay was not in the contemplation of the parties at the time of the making of the contract. ... It was not the fault of the contractor ... **He should be permitted to recover the actual and necessary costs proximately flowing from the delay that was occasioned by this action on the part of the defendant.** ...

As to the general office overhead, the evidence shows that the plaintiff company engaged in other construction work at the time the contract work involved in this litigation was being done. ... **We have therefore apportioned the general office overhead and allotted the proper part of same to this particular contract. In turn, we have allotted the proper part of the net result thus obtained to the unforeseen delay...**¹⁴ (Emphasis supplied.)

Four years later, in a case involving a 1935 contract to construct facilities at a migratory waterfowl refuge in Bennett County, South Dakota, the U.S. Court of Claims ruled –

“Where the contractor, by negligence of the defendant amounting to a breach of the contract, is delayed in the completion of the work; **it is held that plaintiff is entitled to recover a proper proportion of main office overhead for the period of delay, without any precise proof of the amount by which plaintiff’s overhead was ultimately increased by the delay.** *Brand Investment Co. v. United States, 102 Ct. Cls. 40*, cited.”¹⁵ (Emphasis supplied.)

Neither of these decisions, however, included the formula(s) they must have devised and relied upon in order to allocate the home office overhead due the contractor as a result of the government caused delay. These rulings did not say how they arrived at the damages awarded.

Finally, in 1960 the ASBCA heard the appeal of the Eichleay Corporation from a Corps of Engineers determination concerning home office expense allocable as a result of delays encountered during the construction of a Nike Missile Base in Pittsburgh, Pennsylvania. The ASBCA decision stated –

“The problem out of which this dispute arises is how to allocate home office overhead expenses incurred during a period of suspension of work. These

¹⁴ *Herbert M. Baruch Corporation, Ltd., Herbert M. Baruch and Milton Baruch v. United States*, 93 Ct. Cl. 107; 1941 U.S. Ct. Cl. LEXIS 141, March 3, 1941.

¹⁵ *Fred R. Comb Co. v. United States*, 103 Ct. Cl. 174; 1945 U.S. Ct. Cl. LEXIS 21, February 5, 1945.



expenses continue during temporary or partial suspensions, and it was in this case not practical for the contractor to undertake the performance of other work which might absorb them. **There is no exact method to determine the amount of such expenses to be allocated to any particular contract or part of a contract. It has been held a number of times that it is not necessary to prove a specific amount, but only to determine a fair allocation for the purpose of compensating a contractor for delay by the Government.**¹⁶ (Emphasis supplied.)

The ASBCA recognized that when a contractor encounters government caused delays of an unknown duration, the contractor's HOOH continues to accrue but is no longer supported by revenue from the delayed project. The ASBCA acknowledged previous Court findings that there is no exact way to calculate unabsorbed HOOH in order to determine the compensation owed the contractor. It appears that the ASBCA reached back to the *Fred R. Comb* case discussion of proportioning a contractor's HOOH and sought a way to equitably compensate contractors in such situations. The appellant in this case, The Eichleay Corporation, offered a formula to proportionately allocate their HOOH from the corporate level to the project level and then reduce it to a daily cost. The ASBCA in their decision adopted the appellant's proposed method of computing unabsorbed HOOH delay costs – and thus the Eichleay Formula was born!

Let's now examine the practical problems with the use of the Eichleay Formula when pricing unabsorbed HOOH. This examination looks at the Eichleay Formula from three viewpoints – those being accountants or auditors, owners and contractors.

Practical Problems – Accountant's and Auditor's Perspective

While the Eichleay Formula is considered by the Courts and the Boards of Contract Appeals to be a fair and realistic estimating method to allocate unabsorbed HOOH to determine the compensation owed the contractor, accountants and auditors recognize that this is not an accounting formula. Accountants and auditors who examine the Eichleay Formula and who are familiar with the construction industry understand that "The Eichleay formula is based upon a number of presumptions, the correctness of which determines the formula's accuracy and

¹⁶ *Appeal of Eichleay Corporation*, ASBCA, 60-2 B.C.A. (CCH); 1960 ASBCA LEXIS 1207, July 29, 1960, citing *Fred R. Comb Co. v. United States*, (Ibid); *B.W. Construction Co. v. United States*, 104 C. Cls. 608, 643-644 (1945), cert. den. 327 U.S. 785; *Irwin & Leighton v. United States*, 101 C. Cls., 455, 481 (1944); *Brand Investment Co. v. United States*, 102 C. Cls. 40, 58 Fed. Supp. 749 (1944), cert. den. 324 U.S. 850.



usefulness.”¹⁷ There are six major accounting assumptions embedded in the Eichleay Formula which give accountants pause and reason to question the “accuracy and usefulness” of the formula as a way of establishing compensation for unabsorbed HOOH. The presumptions referred to in Anderson’s thesis are the following.

1. That a proportional relationship exists between contract billings and fixed indirect costs. This is a questionable presumption. Anderson notes that contract billings are rarely used as the base for distribution of indirect costs because “contract billings” is the cost of sales plus profit. As the amount of profit included in contract billings varies by contract they are not necessarily directly proportionate between the contract billings and the indirect cost pool as is assumed in the Eichleay Formula.
2. That the indirect cost pool does not include any variable costs. Again, this is an assumption that may or may not be correct. Even home office costs, which are typically fixed costs, sometimes contain variable costs. “To the extent that a claim includes expenses that vary over time, the Eichleay formula does not reliably measure the contractor’s actual loss.”¹⁸ Home office costs and indirect cost pools should be carefully examined to identify and remove such variable costs.
3. That the contractor during delay period does not perform any substituted work. This too should be closely examined. The fact that the contractor cannot take on another project the same size as the delayed or suspended contract does not necessarily mean that the contractor’s work force was idled entirely and provided no benefit to the contractor. Substituted work mitigates the contractor’s damages and is not accounted for in the Eichleay Formula,
4. That the contractor was working at full capacity during the entire period of contract performance. This is an assumption that may or may not be true and which needs to be examined carefully. If a contractor has one large contract underway when a second, government contract is awarded and then, during performance of the government contract the larger contract completes, the contractor does not win another contract to replace it

¹⁷ David G. Anderson, Recovery of Indirect Costs in the Pricing of Equitable Adjustments and Terminations for Convenience, LL.M. Thesis, The National Law Center, George Washington University, Washington, D.C., May, 1988.

¹⁸ *Home Office Overhead as Damage for Construction Delays*, 17 Georgia Law Review 761, 7904 (1983). See also, *Salt Lake City Contractors*, VABCA 1362, 80-2 BCA 14713 at 72,559 (1980).



and the government contract is delayed or suspended, then the contractor's compensation is increased. However, the increased compensation has nothing to do with the government caused delay.

5. That the effect of the delay on the contractor is the same, regardless of when the delay occurs. This may or may not be true and needs to be examined closely. If, in a northern climate, the delay occurs during a winter period when the contractor is less productive and has fewer personnel in the field may have less impact on the contractor than a delay which occurs during the summer when larger and more productive forces are in the field. The Eichleay Formula, however, compensates the contractor the same in both cases.
6. That the period of contract performance is an acceptable base period for accumulating fixed indirect costs. That is, this period is representative of the contractor's fixed indirect costs. This presumption is more likely to be accurate when a contractor is operating under normal and relatively stable business conditions. However, in times of economic turbulence the degree to which costs may be fixed varies. The Eichleay Formula does not deal with this sort of accounting sensitivity.

Additionally, from the viewpoint of accountants and auditors the Eichleay Formula has the following additional shortcomings which are not and cannot be addressed when using the Eichleay Formula.

1. The Eichleay Formula cannot be adjusted for
 - a. Seasonal work fluctuations
 - b. Substituted work during delay periods, or
 - c. To account for the capacity at which contractor was working before the delay period.
2. HOOH recovered through mark-ups on added or changed work is not accounted for in the context of the Eichleay Formula. Thus, if an owner uses the Eichleay Formula to price delay they should make an adjustment to the resulting damage calculations to reduce the damages by that amount of HOOH paid earlier in marks ups for changes. As these markups are typically added by application of a single percentage number, the owner is, perforce, required in enter into a second negotiation – that is, of the 10% markup on



changes issued during the delay period, how much was HOOH? This is a difficult negotiation indeed.

3. Some also argue that the Eichleay Formula fails to consider that a delay simply defers recovery of HOOH costs from one accounting period to another. Thus, there is no true economic loss to contractor.

Accountants and auditors are frequently aware of these shortcomings in the strict application of the Eichleay Formula but as their work takes place long after the contract is executed they are powerless to change the formula or its application. Some practical remedies are offered in the last section of this paper to help address some of these objections.

Practical Problems – Owner’s Perspective

Owners, too, have a view concerning strict application of the Eichleay Formula. Among the owner objections frequently voiced are the following.

1. The Eichleay Formula, strictly applied, may cause “overpayment” of the contractor’s damages as noted above.
2. The owner may end up paying for the contractor’s Skybox at Angel Stadium, their condominium in Sun Valley or their golf club membership in Palm Springs, any or all of which may be charged to HOOH under the guise of “employee health, welfare and morale” expenses in accordance with accounting and tax rules.
3. The contractor being compensated via the Eichleay Formula may be “double dipping” unless some portion of the overhead markup paid on previously issued change orders is deducted from the Eichleay Formula calculation.
4. Finally, for those owners who truly want to resolve delays during the life of the project and not wait until the end of the work to tackle such thorny issues, the Eichleay Formula cannot be applied. The Eichleay Formula is an end of the project formula as the costs and the period of performance employed in the formula all have to be calculated when the project is complete. Eichleay cannot be used during the life of the project!

Some practical remedies are offered in the last section of this paper to help address some of the concerns and objections raised by project owners.



Practical Problems – Contractor’s Perspective

Contractors too, have some concerns and objections with the application of the Eichley Formula. Among them are the following.

1. Despite the fact that the Eichley Formula is now 50 years old and has been employed in literally hundreds of cases, the Eichley Formula is not recognized in all State courts throughout the United States. In an informative article published in 1996¹⁹ it was noted that only Florida, Maryland, Massachusetts, Ohio, Rhode Island and Washington have State case law accepting the Eichley Formula and, even then, had some restrictions on when the formula could be employed. Some States specifically disallow the use of the Eichley Formula.²⁰ Even more interesting is the fact that 43 other states, as of 1996, had “no appellate level court cases discussing the acceptability of Eichley...”²¹
2. Federal Courts have proscribed when and under what circumstances the Eichley Formula can be employed. Some State Courts have followed suit likewise. The rules currently in effect as to when the Eichley Formula may be employed are the following.
The contractor –
 - a. Must experience government caused (compensable) delay;
 - b. Of indefinite (unknown) duration;
 - c. Suspending most, if not all, of the project work;
 - d. Resulting in a substantial disruption or decrease in the income stream from the project;
 - e. Remain ready to resume contract work immediately; and,
 - f. Is unable to secure comparable replacement work during the impacted period in order to replace the reduced cash flow from this project.²²

¹⁹ McGeehin and Strouss, *ibid*.

²⁰ See, for example, *Berley Industries, Inc. v. City of New York*, 398 N.Y.S.2d 353 (N.Y. App. Div. 1977), *reversed*, 45 N.Y.2d 683, 385 N.E.2d 281 (N.Y. 1978) and *Manshul Construction Corp. v. Dormitory Authority*, 436 N.Y.S.2d 724 (App. Div. 1981).

²¹ McGeehin and Strouss, *ibid*.

²² See James G. Zack, Jr., *Calculation and Recovery of Home Office Overhead*, AACE International Transactions, AACE International, Morgantown, WV, 2001; Reginald M. Jones, *Recovering Extended Home Office Overhead: What is the State of Eichley?*, Procurement Lawyer, Vol. 40, No. 1, Fall, 2004; and Howrey LLP, *Unabsorbed Home Office Overhead – Making a Prima Facie Case for Entitlement to Recovery Under Eichley*, Construction Weblinks@, August 28, 2006.



3. Finally, as noted earlier, the Eichleay Formula is an end of the job formula for estimating the impact of an owner caused delay which resulted in unabsorbed HOOH. For a contractor seeking to resolve delay claims as they progress through the project, the Eichleay Formula does not offer any avenue for relief.

Some Potential Remedies

Practically speaking, the only opportunity to make changes concerning delay damages and the recovery of extended/unabsorbed HOOH is to do so when drafting the contract. Changes after contract award either (a) have to be negotiated with the contractor (who has little incentive to enter into such negotiations) or (b) will require an expensive court case and, perhaps, require the judge to “make new law” (something most judges are loathe to do). Therefore, some practical, potential remedies offered for consideration are the following.

Prohibit Recovery of Extended/Unabsorbed HOOH

Some owners seek to avoid payment of extended/unabsorbed HOOH all together on the belief that these are not real damages. For owners who want to adopt this approach, the following are two potential ways to implement it by contract.

1. ***No Damage For Delay Clause*** – The owner who seeks to prohibit recovery of extended or unabsorbed HOOH may include a no damage for delay clause in the contract. Such an exculpatory clause attempts to eliminate or substantially reduce the damages a contractor may seek compensation for resulting from owner caused delay. In some States such a clause is enforceable (i.e., New York)²³, while in other States the Courts acknowledge some or all of the six widely recognized exceptions to the enforceability of such contract language.²⁴ These exceptions are, generally, the following –

- a. A delay not covered by the language of the clause;

²³ *Phoenix Contracting Corp. v. New York City Health and Hospital Corp.*, 118 A.D.2d 477, 499 N.Y.S.2d 953 (1986).

²⁴ See Josh M. Leavitt and Joseph C. Wylie, *Recent Trends in Exceptions to Enforceability of No Damages for Delay Clauses*, Real Estate Law and Practice Course Handbook, Practising Law Institute, New York, 2005. See also Carl S. Beattie, *Apportioning the Risk of Delay in Construction Projects: A Proposed Alternative to the Inadequate “No Damages for Delay” Clause*, William and Mary Law Review, March, 2005.



- b. A delay not contemplated by the parties when executing the contract;
- c. A delay of “unreasonable duration”;
- d. A delay resulting from active interference or other wrongful conduct of the owner;
- e. Waiver of the clause by actions of the parties; or,
- f. Fundamental breach of the contract by the owner justifying nonenforcement of the clause.²⁵

Finally, there are a number of States where no damage for delay clauses are unenforceable by statute. As of the 2006 – 2007 timeframe, some 15 States had prohibited, in whole or in part, including Arizona,²⁶ California,²⁷ Colorado,²⁸ Kentucky,²⁹ Massachusetts,³⁰ Minnesota,³¹ Missouri,³² Nevada,³³ North Carolina,³⁴ Ohio,³⁵ Oregon,³⁶ Rhode Island,³⁷ Texas,³⁸ Virginia,³⁹ and Washington.⁴⁰ Therefore, owners who decide to employ this approach need to seek the advice of competent legal counsel to determine whether such a clause is enforceable in the owner’s jurisdiction.

2. ***Include Unabsorbed HOOH in the Consequential Damage Clause*** – The American Institute of Architects (“AIA”) standard form construction general conditions (AIA Document A201-1997, ¶8.3.3) “...does not preclude recovery of damages for delay

²⁵ Barry B. Bramble and Michael T. Callahan, Construction Delay Claims, 3rd Edition, Aspen Publishers, New York, N.Y., 2000.

²⁶ Ariz. Rev. Stat. §41-2617.

²⁷ Cal. Pub. Cont. Code §7102.

²⁸ Colo. Rev. Stat. Ann. 24-91-103.5(1)(a).

²⁹ 371 Ky. Rev. St., 45 A-245, §371-160. It is interesting to note that this statute is applicable to some private contracts in addition to public works contracts entered into after June 26, 2007.

³⁰ Mass. Gen. Laws Ann., Chapter 30, §390.

³¹ Minn. Stat. Ann. §15.411(2).

³² Mo. Ann. Stat. §34.058.

³³ Nev. Rev. Stat. Ann. §§108.2453(e), 624.622(2)(c).

³⁴ N.C. Gen. Stat. Ann. §143-134.3.

³⁵ Ohio Rev. Code Ann. §4113.62(C)(2).

³⁶ OR. Rev. Stat. §279CV.315(1).

³⁷ R.I. Gen. Laws §37-2-42(a),(d).

³⁸ Tex. Gov’t. Code Ann. §2260.003(a)(3), (c)(5).

³⁹ Va. Code Ann. §2.2-4335(A).

⁴⁰ Wash. Rev. Code Ann. §4-24.360.



by either party...”⁴¹ However, in the Claims for Consequential Damages article the AIA document has the owner and the contractor waiving claims against one another for “...consequential damages arising out of or relating to this Contract.” This mutual waiver language includes –

“damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there...”⁴²

Unlike the broad brush of the no damage for delay clause approach this clause is more finely tuned in that it limits only extended/unabsorbed HOOH. Again, though, owners thinking of employing this approach need to seek competent legal advice to determine whether courts in their jurisdiction have been enforcing the AIA consequential damage clause.

3. ***“Grace Period” or “Dead Band” Clause*** – Under this approach the owner may establish, by contract, a grace period or dead band beyond the original contract completion date, during which period no claims for extended/unabsorbed HOOH are allowed. If owner caused delay exceeds this period then the contractor may seek compensation for HOOH costs. While this approach does not eliminate claims for extended/unabsorbed HOOH entirely, it allocates the risk of such costs should owner caused delay fall within this period. That is, the owner gambles that his delays will not exceed this period and the contractor is free to include some potential owner caused delay costs in his bid – holding these costs in his contingency should such delay arise. If the owner caused delay does not occur or occurs but does not consume the entire grace period, the remaining unused contingency cost drops straight to the contractor’s bottom line.

Change the Rules for Recovering Extended/Unabsorbed HOOH

Other owners are willing to compensate contractors for delay damages arising from owner caused delay but are loathe to adopt the Eichleay Formula as they believe it over compensates contractors. For owners seeking to take this approach, the following remedies may be employed.

⁴¹ AIA Document A201-1997, ¶8.3.3.

⁴² AIA Document A201-1997, ¶4.3.10.



1. **Audit – Access to Records Clause** – An Audit/Access to Records clause should be included in all contracts giving the owner the right to audit the contractors job cost records and any other records related to change order cost proposals or claims.⁴³ Such clauses, properly worded, have generally found support when challenged in court and there is no reason to believe this trend will not continue.

2. **The Mortensen Rule** – Owners seeking to limit recovery for owner caused delay may incorporate the Mortensen Rule⁴⁴ into the terms and conditions of the contract. Under this rule a contractor is given the option of choosing either a percentage markup rate for HOOH costs on changes or a *per diem* rate. Following the Mortensen Rule the contractor must use the same method at all times subsequent to selection of the method. To incorporate this approach, owners should consult with legal counsel, review the case law and craft a clause that contractually incorporates this approach into the bidding documents.

4. **Absorption Rate Formulas** – Stipulate the use of an absorption rate formula in the contract for recovery of owner caused delay costs. Absorption rate formulas calculate underabsorption by comparing a potential or reasonable overhead absorption rate against the actual absorption rate for the purpose of calculating the effect of the delay on the contractor’s HOOH absorption.⁴⁵ The two absorption rate formulas follow.

a. Allegheny Method –

The Allegheny Formula is set forth below.

$$\frac{\text{Incurred Overhead Rate During Actual Period} - \text{Actual Overhead Rate for Projected Performance Period}}{\text{Actual Period}} = \text{Excess Overhead Rate}$$

$$\text{Excess Overhead Rate} \times \text{Contract Base Cost} = \text{Unabsorbed HOOH}$$

⁴³ See, for example, the U.S. Government’s Audit Clauses at FAR 52.214-26 or 52.215-2.

⁴⁴ *M.A. Mortenson Co.*, ASBCA No. 40750, 97-1 B.C.A. (CCH) ¶ 28,623 (1997), *aff’d on recons.* 9801 B.C.A. (CCH) 29,658 (1998). See also *Caldwell Construction Co., Inc.*, ASBCA No. 49333, 00-1 B.C.A. ¶ 30,702, *aff’d on recons.*, 00-1 B.C.A. (CCH) ¶ 30,859 (2000).

⁴⁵ See Transportation Research Board, Compensation for Contractor’s Home Office Overhead: A Synthesis of Highway Practice, *ibid.* See also, David G. Anderson, Recovery of Indirect Costs in the Pricing of Equitable Adjustments and Terminations for Convenience, *ibid.*



b. Carteret Method –

The Carteret Formula is displayed below.

$$\frac{\text{Incurred Overhead Rate During Delay Period}}{\text{Normal Overhead Rate}} = \text{Excess Overhead Rate}$$

$$\text{Excess Overhead Rate} \times \text{Total Base Cost} = \text{Unabsorbed HOOH During Delay Period}$$

It should be noted that while a number of accountants/auditors have recommended this approach, courts understand that these formulas are more suitable for manufacturing operations than construction projects. Therefore, owners seeking to take this approach need to seek advice of legal counsel to determine whether courts in their jurisdiction are likely to uphold such a clause.

5. **Fixed Mark Up Rates** – Include a fixed markup rate in the contract which specifically covers unabsorbed or extended HOOH costs. The General Services Administration, the Veteran’s Administration and the U.S. Postal Service have all adopted contractually fixed overhead rates which have withstood court challenges.⁴⁶ To see the Veteran’s Administration overhead limitation clause see FAR § 8-7.650-21, Contract Changes.⁴⁷ The General Services Administration overhead limitation clause may be found at FAR § 552.243-71, Equitable Adjustments.⁴⁸
6. **“Extended vs. Unabsorbed Overhead Recovery”** – Owners may preclude recovery of unabsorbed HOOH by contract using language similar to AIA Document A201-1997, ¶8.3.3) but then allow recovery of “extended HOOH” based on the actual value of the additional administrative services the contractor had to employ due to the delay. The approach would be to determine the administrative services the contractor had to provide while the project was proceeding as expected and compare them to the administrative costs incurred during the period of delay.⁴⁹

⁴⁶ *Santa Fe Engineers v. United States*, 801 F.2d 379 (C.A.F.C. 1986); *West Land Builders*, VABCA 1664, 83-1 B.C.A. 16325.

⁴⁷ 34 FR 15470, October 4, 1969, as amended at 38 FR 5478, March 1, 1973; 39 FR 13263, April 12, 1974; 41 FR 48519, November 4, 1976; 45 FR 15930, March 12, 1980.

⁴⁸ 48 CFR 552.243-71.

⁴⁹ For a more thorough discussion of this approach see David G. Anderson, Recovery of Indirect Costs in the Pricing of Equitable Adjustments and Terminations for Convenience, *ibid.*



7. **Alternative Formulas** – Owners may include alternative formulas for calculating extended/unabsorbed HOOH in the contract. If clearly worded in the contract it is likely that such an approach would be upheld by courts, boards and arbitration panels. Some alternative formulas for consideration are set forth below.

a. Anderson’s modified Eichleay Formula⁵⁰

$$\frac{\text{Delayed Contract's Value for Normal Period}}{\text{Total Value of All Contracts For Normal Period}} \times \frac{\text{Total Fixed Home Office Expenditures for Delay Period}}{\text{Allocable HOOH}} = \text{HOOH}$$

b. Canadian Method⁵¹

$$\frac{\% \text{ Markup from Bid} \times \text{Original Contract Sum}}{\text{Original Days in Contract}} = \text{Daily Overhead Rate}$$

$$\text{Daily Overhead Rate} \times \text{Days of Compensable Delay} = \text{HOOH Owed}$$

c. Florida Method⁵²

$$\text{Average Overhead/Day} = \frac{\text{Original Contract Amount} \times 8\%}{\text{Original Contract Time}}$$

d. Ohio Method⁵³

$$\text{HOOH \%}^{54} = \frac{\text{Days of Delay} \times (\text{Original Contract Value} \times 5.5\%)}{\text{Original Contract Duration}}$$

The above list of formulas is certainly not all inclusive. There are, undoubtedly, other formulas in use and many more that can be crafted and included in contracts. The point

⁵⁰ See David G. Anderson, Recovery of Indirect Costs in the Pricing of Equitable Adjustments and Terminations for Convenience, *ibid.*

⁵¹ See Transportation Research Board, Compensation for Contractor’s Home Office Overhead: A Synthesis of Highway Practice, *ibid.*

⁵² *Ibid.*

⁵³ *Ibid.*

⁵⁴ Ohio DOT has currently established the HOOH % they will pay under their contracts at 5.5%.



here is that with thought and careful wordsmithing owners can create their own methods of calculating how extended/unabsorbed HOOH will be compensated in the event of owner caused delay. It is believed that if the formula is clearly stated and the conditions under which it may be employed are likewise clear in the contract, most legal forums are likely to enforce use of the formula.

Incorporate “Federal Rules” in the Contract

1. ***Adopt Federal Rules on Recovery of Unabsorbed HOOH*** – Some owners are comfortable with the use of the Eichleay Formula as a way of estimating the compensation owed a contractor due to owner caused delay. However, they seek to limit when such compensation is owed or, rather, under what circumstances may the contractor employ the Eichleay Formula. In this case, legal analysis of the current Federal Court rules on the subject can be written into the contract. A contract clause can be crafted that states clearly the contractor is not owed extended/unabsorbed HOOH unless all of the following conditions are met.
 - a. The delay encountered must be owner caused delay;
 - b. Of indefinite (unknown) duration;
 - c. Suspending most, if not all, of the project work;
 - d. Resulting in a substantial disruption or decrease in the income stream from the project;
 - e. The contractor is required to remain ready to resume contract work immediately; and,
 - f. Is unable to secure comparable replacement work during the impacted period in order to replace the reduced cash flow from this project.

Certainly judges and arbitrators are likely to recognize such rules as being applicable to direct Federal contracts and if they find the same rules clearly incorporated into the terms and conditions of the contract in dispute, it is presumed they will enforce what was clearly written and agreed to.

2. ***Incorporate FAR Unallowable Cost Provisions*** – Some owners do not object to the Eichleay Formula but want to insure that certain of the contractor’s HOOH costs are disallowed when calculating their HOOH costs. Inclusion of language in the contract



to the effect that the disallowed overhead costs from the FAR⁵⁵ are disallowed under the terms of this contract when calculating extended/unabsorbed HOOH. The Audit/Access to Records clause mentioned earlier can be employed to see that such a cost limitation clause is strictly enforced.

Create Mid-Contract Unabsorbed HOOH Rule in Contract

1. **Limited Reservation of Rights** – Many owners understand the value of settling delay claims as such situations arise. They understand that this is one way to avoid a major end of the project legal battle as well as a way to effectively eliminate constructive acceleration claims on their projects. Owners who have studied this approach understand that the Eichleay Formula cannot be employed on a mid-project basis. That is, they are cognizant of the fact that the Eichleay Formula cannot be employed until the end of the project. This effectively cuts against the owner’s intent to settle delay claims during the course of the project. However, inclusion of a clause which provides for payment of direct delay costs (such as, extended equipment and storage costs, extended FOOH costs, etc.) but allows the contractor to reserve their rights to recover extended/unabsorbed HOOH costs until end of project may help resolve this conundrum.
2. **Create a Mid-Project Formula** – Again, owners who want to resolve delay claims as they arise may want to consider choosing one of the formulas above to employ as an interim or mid-project mechanism to use for calculating and paying extended/unabsorbed HOOH but with the owner reserving their rights to apply the Eichleay Formula at the end of the project to determine if previous payments for delay should be adjusted, upwards or downwards, depending upon the outcome of the final calculation.

Bid Daily Delay Cost

1. **Time Related Overhead Approach** – The California Department of Transportation (“Caltrans”) has employed a unique mechanism on some of their larger projects (the San Francisco – Oakland Bay Bridge replacement project for example). They use a Time Related Overhead (“TRO”) bid item and specification to implement the

⁵⁵ FAR 31.205.



approach.⁵⁶ One of the line items in the bid form requires the contractor to fill in their daily time related cost and multiply this daily rate times the number of working days in the Time of Performance clause. The cost is stipulated to include FOOH as well as HOOH. The contractor is paid monthly as the project progresses based upon the number of work days consumed each month. If delays arise during the performance of the work, the TRO number is used to price the delay once agreement is reached on causation and liability. The TRO number is only subject to unit price adjustment if delay exceeds 149% of the original number of work days stipulated in the contract. This specification generally avoids the need for audit concerning delay costs and makes settlement of delay claims easier. Further, Caltrans has tied this requirement to their Escrow Bid Document requirement such that the work sheets used to calculate and bid the daily delay costs are preserved in a neutral location for examination in the event that one or the other party has a need to review the calculation in order to settle a delay claim.

2. **Bid Your Delay** – A variant of the above is for the owner to insert a line item in the bid for “x” number of days of owner caused delay. (The owner stipulates the number of days in the bid form.) The contractor is required to fill in the cost per day and carry out the multiplication for that line item. The specification implementing this approach states that the Owner Caused Delay line item is an allowance. Thus, the number of days and payment therefor will be subject to upward or downward adjustment depending upon the number of days of actual owner caused delay at the end of the project; provided that, the line item cost is not subject to adjustment.⁵⁷ The U.S. General Services Administration (“GSA”) has successfully used the Bid Your Delay approach to contractually define delay damages, including HOOH damages, to which a contractor is entitled.⁵⁸

⁵⁶Caltrans Program Procedure Bulletin CPB 00-8, *Contract Administration - Time-Related Overhead (TRO)*, December 15, 2000.

⁵⁷ James G. Zack, Jr., “*Claimsmanship*”: *Current Perspective*, American Society of Civil Engineers Journal of Construction Engineering and Management, Vol. 119, No.3, September, 1993.

⁵⁸ The Bid Your Delay approach to defining delay damages was recently upheld by the Civilian Board of Contract Appeals (“CBCA”). See “Cross Motions for Partial Summary Relief Granted in Part, July 29, 2010: CBCA 420, 450, 451, 1307, 1855; *Dick/Morganti, A Joint Venture v. General Services Administration*”. (It is interesting to note that the contract under consideration in these motions also required the contractor to “bid the percentage markup” it was top received for added work. Thus, this particular contract closed a potential loophole under which a contractor might claim that the contract did not allow for the recovery of additional HOOH incurred as a result of added work.)



Conclusion

The Eichley Formula is now a half century old. It is, however, nearly as controversial today as it was when it was first created. Some Federal agencies employ the Eichley Formula due to Federal Court rulings, while others use different approaches. For those comfortable with the use of the Eichley Formula, use it judiciously. For others, uncomfortable with the formula, this paper offers a number of potential ways to deal with the issue of compensating the contractor for delay costs arising from owner caused delays. The key to the successful employment of any of these alternatives is for owners to think through the situation while the contract is being drafted; decide how they want to calculate compensation for delay damages in the event they delay the project; seek competent legal advice concerning their decisions; and carefully craft and clearly incorporate such language into the contract documents. Failure to do so may put the owner in the unenviable position of having to close out their project in an arbitration hearing room or a courtroom.